

# Teaching English-Japanese Dictionary Use in University Remedial Courses<sup>1</sup>

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## 1 Introduction

### **1.1 Importance of Learning How to Learn in University, and of Teaching English Dictionary Use in University English Education**

University education is different from primary and secondary education in many respects. Above all, the importance of self-learning is much greater in university education. In English reading courses, for example, it is as important for students to read texts and try to understand them by themselves as it is for them to attend classes. Therefore, it is important to help university students to be autonomous learners. Dictionaries play very important roles both in class and for autonomous learning in many ways. Outside the classroom, as Stein (1990: 401) remarked, dictionaries take the place of teachers as guides and language arbiters. Although dictionaries potentially provide a wide range of knowledge about a language, they are less considerate of learners' random needs than human teachers. Therefore, skills for making effective use of dictionaries are essential for learning English, regardless of the presence or absence of instructors.

University education is probably the last opportunity for many students to be taught how to learn skills such as dictionary use. In universities, however, the importance of dictionaries in students' learning is probably not widely recognized, judging from the fact that few textbooks for university English courses (e.g., Komuro, 2011; Yamauchi et al., 2006) do justice to dictionaries. Also, university students underutilize dictionaries and many

do not have necessary dictionary use skills.<sup>2</sup> My questionnaire survey also made it clear that dictionary use has not been sufficiently taught in junior- and senior-high schools, supporting the report of Hidai (2009: 3), a junior-high school teacher, that teachers tend to avoid teaching dictionary use in the classroom. The present paper is written with the aim of showing the need and importance of teaching how to use English dictionaries in university English education, especially in remedial courses.

One of the reasons why dictionary use is not sufficiently taught in junior- and senior-high school and university is probably that the ability to use dictionaries is often taken for granted. It may not be easy for those who have acquired the skills as second nature to imagine that some learners may lack the abilities, and it might be a tacitly but commonly held belief that as long as learners can read Japanese and know the order of the alphabet, they can utilize English (especially English-Japanese) dictionaries without difficulty even if they do not have a habit of using them. Learners' knowledge of Japanese and the alphabet, however, does not guarantee effective dictionary use; it only guarantees that they can find the entry for a word they are looking for. However, they also need to extract needed pieces of information from heavily encoded dictionary texts. As has been recognized by researchers (e.g., Béjoint, 1989: 209), this task is cognitively complex and by no means easy for beginners, and previous research has already shown that "many dictionary users are unable to find and extract from a dictionary all the information it holds ready for them" (Stein, 1990: 404).

In fact, in my class, it was confirmed that students cannot use bilingual dictionaries as such. I, as well as a colleague of mine, often see students "translate" an English sentence into Japanese by simply juxtaposing the first Japanese equivalents in E-J dictionary entries. To such students, bilingual dictionaries serve merely as a matching table consisting of pairs of English and Japanese words. It is thus clear that they need to be taught and practice how to use dictionaries.

Practice in consulting dictionaries is obviously essential for mastering dictionary use, but university students are unlikely to have had to use English dictionaries frequently before entering university because many textbooks they have been exposed to have wordlists that serve as a quick substitute for dictionaries.

However, at universities and later, learners have more and more chances to read English texts without a wordlist, so “the ability of using dictionaries properly, as part of lifelong learning skills” (Yamagishi, N.D., trans. mine) becomes even more important in university years and later. It would not be an overstatement to say that teaching proper dictionary use constitutes an integral part of university English education.

## **1.2 Significance of Teaching English Dictionary Use in Remedial Courses**

Teaching dictionary use is of further significance in remedial English education, where one of the tightest constraints is time. Here, remedial English education means catch-up education of junior and senior-high school English in university classes. It is thus defined in terms of its content, not its position in a curriculum. Most remedial university English classes are taught only once or twice a week for around 15 or 30 weeks. While time is thus severely limited, what should be covered is disproportionately large. Ideally, students should catch up on what they should have learned in the previous six years (at most) of junior- and senior-high school study. Whatever approach instructors may adopt, students inarguably need to learn basic grammar and vocabulary at the very least.

Basic grammar is relatively easy to cover within a limited time. Many textbooks for university classes covering basic English grammar are available on the market (e.g., Yamada et al., 2011; Ishii et al., 2009). Vocabulary, on the other hand, is intrinsically difficult to cover within a short period. Even basic English words cannot be sufficiently treated in remedial classes. Note that learning a certain number of basic words is totally different from memorizing a single Japanese counterpart of each of them. Paradoxically, as Tanaka (2006) points out, the more basic a word is, the harder it is for learners to master its use because of the wider range of uses to which it is put. Tanaka (2006: 8) corroborated this by showing that the entries for around 1,000 basic words amount to half of a 2,000–page-long English dictionary containing about 100,000 entries. In addition to basic words, learners who have passed beyond the beginning stage need to continue familiarizing themselves with more advanced vocabulary. At the intermediate level, as Stein (1990) puts it, “it is self-

evident that the massive vocabulary expansion so urgently needed cannot be provided in the classroom alone" (p. 401). Instructors, therefore, should teach how to learn vocabulary, and I argue that teaching dictionary use is the best way they can do so within the limited time available.

### **1.3 Previous Research on Dictionary Use Teaching**

Even though English dictionary use is not sufficiently taught in Japanese schools and universities, researchers on English dictionary teaching (e.g., Sekiyama 2007: 3, and Hidai 2009: 3) have recognized the importance of English dictionaries for learners. Such a view seems to be shared internationally; Béjoint (1989: 208), for example, lists more than 20 authors who have stressed the need for teaching dictionary use.

What is most helpful to instructors trying to teach dictionary use would be a textbook on dictionary usage. There are some previous studies in Japan that are relevant to the present paper in that they focused not on E-E dictionaries, but on E-J dictionaries (e.g., Hamano, 1999; Sekiyama, 2007; Hidai, 2009; and Okada, 2009)<sup>3</sup> although they are not textbooks for university courses. However, it is doubtful whether they will satisfy the needs of students in remedial courses. This is because they appear to have been written mainly from the perspectives of lexicographers or those who are talented at English and have naturally become accustomed to dictionaries. Specifically, their dictionary-oriented perspectives seem to be reflected in the tendency of those books to spell out "how to use this dictionary" documents in the front matter more or less straightforwardly. They very often just explain symbols and notations and do not sufficiently take into consideration users' needs, i.e., what they want to know when consulting a dictionary, such as finding proper Japanese equivalents of a polysemous English word, which my handouts extensively cover (see section 3).<sup>4</sup>

### **1.4 The Approach of This Study**

This study, based on my attempt to teach E-J dictionary use to university students in remedial courses, addresses two research questions: (a) how (in what way, how well, and how often) university students, especially students in remedial courses, use English dictionaries, E-J dictionaries in particular, and (b) what

should be taught to those students who are not good at using E-J dictionaries. The answer presented in this paper to the second question is intended to provide a model case of English dictionary teaching in university that helps dictionary-use education to be applied more widely by instructors who recognize the importance of dictionary-use teaching.

## 2 A Questionnaire and Quiz on Dictionary Use

For the purpose of investigating the actual state of university students' dictionary use, I conducted a questionnaire and quiz at the beginning of the spring term in 2012.

### 2.1 Questionnaire

177 students at the following three universities answered at least part of the questionnaire; most of them were first or second year students. Forty of the students were enrolled at a university of foreign studies (University A). Four international students' (whose first language was not Japanese) answers were not counted when the types of English dictionary (E-J, J-E, E-E, or others) matter. Thirty-two of the 36 Japanese students provided their TOEIC score, which averaged 731, so it is safe to say that most of the 36 Japanese students were relatively advanced English learners. The second (University B) is a national university. Generally speaking, the students there are relatively good at English for Japanese university students but are not as proficient as most University A students. The other 74 students were enrolled in my remedial courses at a private university (University C). There I taught basic English grammar and, to the subject group alone, dictionary use. Even after they studied English for 6 years, their English ability was still stagnating at a beginner level.

The questionnaire mainly asked whether students have English dictionaries, and, if so, whether and how often they use them, but in what follows we will survey only questions and answers on (1) participants' past experience of being taught English dictionary use, and (2) University C students' status of dictionary utilization.

The questionnaire confirmed that students have little, if any, experience of being taught dictionary use. Overall, about one-third of the students had been taught dictionary use.

	Affirmative		Negative		No answer		Total
Univ C	23	31.1%	45	60.8%	6	8.1%	74
Univ B	21	33.3%	41	65.1%	1	1.6%	63
Univ A	17	42.5%	23	57.5%	0	0.0%	40
<b>Total</b>	<b>61</b>	<b>34.5%</b>	<b>109</b>	<b>61.6%</b>	<b>7</b>	<b>4.0%</b>	<b>177</b>

Table 1. Whether Students Have Been Taught English Dictionary Use

Even those students had not been taught dictionary use extensively. "One hour" was the answer from most of the 44 students who had been taught it and answered how many hours, and all of them except for one seem to have been taught dictionary use only once. The short length of time suggests also that only the most basic points were taught, and the following supports this conjecture: about half of them were taught it in the first year of junior-high school.

	6th in elementary	Sometime in junior-high	1st in junior-high	2nd in junior-high	3rd in junior-high	1st in senior-high
Univ C	1	4	9	1	0	3
Univ B	0	0	11	1	2	5
Univ A	0	1	9	0	0	5
<b>Total</b>	<b>1</b>	<b>3</b>	<b>29</b>	<b>2</b>	<b>2</b>	<b>13</b>

2nd in senior-high	3rd in senior-high	<i>Ronin</i> <sup>5</sup>	1st in univ	No or uninterpretable answer	Total
0	0	0	4	3	23
0	1	2	0	0	22
1	0	0	1	0	17
1	1	2	5	3	62

Table 2. Periods Students Were Taught English Dictionary Use

The status of students' dictionary utilization, especially of remedial students', will be explored next. To start with the conclusion, the status of remedial students' dictionary use is deplorable. Only about one-third of the University C students were safely counted as E-J users, while the vast majority of the University A and B students were.

	E-J users		J-E users		E-E users	
<b>Univ C</b>	27	36.5%	20	27.0%	1	1.4%
<b>Univ B</b>	59	93.7%	27	42.9%	12	19.0%
<b>Univ A</b>	35	97.2%	27	75.0%	14	38.9%
<b>Total</b>	121	69.9%	74	42.8%	27	15.6%

Table 3. Utilization Situation of English Dictionaries Without Reference to Forms

Equally notable about University C students is the higher percentages of those who own but do not use dictionaries. For instance, regarding portable dedicated electronic dictionaries, the most widely used form, only about a quarter of the University C students used theirs, which was less than half of the electronic dictionary owners at the university.

	Owner and user		Owner but non-user		Non-owner		Not sure if they own one		No answer		Total
<b>Univ C</b>	19	25.7%	21	28.4%	29	39.2%	1	1.4%	4	5.4%	74
<b>Univ B</b>	54	85.7%	5	7.9%	4	6.3%	0	0.0%	0	0.0%	63
<b>Univ A</b>	38	95.0%	1	2.5%	1	2.5%	0	0.0%	0	0.0%	40
<b>Total</b>	111	62.7%	27	15.3%	34	19.2%	1	0.6%	4	2.3%	177

Table 4. Utilization Situation of Dedicated Portable Electronic Dictionaries

What is most important here is that it is clear that many students in remedial courses have never been taught dictionary use, and infrequently consult dictionaries even if they own ones, probably partly because they cannot make effective use of them, as discussed in the next section.

## 2.2 Quiz

Along with the questionnaire, I conducted a dictionary quiz with the same students. All questions therein should be answered correctly if students can make full use of an E-J dictionary. The quiz is mainly based on an E-E dictionary quiz made by Alexander Gilmore, who kindly permitted me to reuse it. I arranged it for Konishi and Minamide (2006), the most widely used E-J dictionary (i.e., *Genius English-Japanese Dictionary* [4<sup>th</sup> edition]). Not all students, of course, have a copy of that dictionary, so I scanned, cut and pasted all relevant entries into a leaflet, which I distrib-

uted before the quiz began.

The average score of all 119 students (consisting of 18 at Univ A, 33 at Univ B, and 68 at Univ C) was 14.0 (58.3%).<sup>6</sup> The average score of the University A students was 21.1 (87.9%), which is not statistically significantly different from that of the University B students, 20.0 (83.3%),  $t(49) = 1.45$ ,  $p = .15$  (two-tailed). Much lower was the average score of the University C students. Their average score was 9.8 (40.8%). From these results, it is safe to say that University C students were not skillful in their use of an E-J dictionary.

### 3 Teaching English-Japanese Dictionary Use

Having confirmed that remedial students have not adequately been taught how to use English dictionaries, do not frequently consult them, and cannot properly utilize them, in this section we will discuss what should be taught to them, presenting how I taught dictionary use to the subject group using handouts.

#### 3.1 Selection of a Dictionary to Be Taught

In my dictionary-use teaching, I exclusively focus on E-J dictionaries within a 13 week time limit. One reason is that they are the type of English dictionary by far the most widely used by university students, and all of the remedial students must have at least some familiarity with them. The questionnaire confirmed that E-J dictionaries are the most widely used type (Table 3).

From a large number of E-J dictionaries available, I chose *Genius English-Japanese Dictionary* (4<sup>th</sup> edition), the latest edition of the E-J dictionary that is most widely used according to my questionnaire, and made handouts following the notational conventions of the dictionary. I helped those students who had other dictionaries in person while they were doing exercises.

#### 3.2 Overview and the Overall Idea of My Teaching

Before going into the details of my teaching method, it would be helpful for readers to see how dictionary teaching fit into my class. I taught dictionary use during all 13 lessons in a semester. I did this because I agree with one of Béjoint's (1989) conclusions that "the education of the users should be spread over the whole period of language teaching as much as possible, rather than



concentrated in a few classes and forgotten afterwards" (p. 211). Every week I spent about fifteen minutes in explaining the week's handout. Naturally, I had to be selective in what to teach in each section.

In every class, after we covered grammar, I taught dictionary use before we proceeded to exercises that consist of roughly equal numbers of sentence-level composition questions (i.e., J-E translation) and sentence-level comprehension questions (i.e., E-J translation). The exercises were designed so that students could practice using dictionaries in the way that they had just studied.

The tables below list the topics of my dictionary-use teaching and the grammar section for each week (Table 5), along with whether the week's handout was closely related to each of the key concepts discussed in the next section (Table 6). The topic for a given week was often linked to the grammar points that students studied in the same week, as shown in the parentheses in Table 5. For example, when they studied the passive voice (Week 11), I dealt with how to check verbs used in passive.

Week	Dictionary use points	Grammar points
2	Countable and uncountable nouns	Basic parts of speech (including countable and uncountable nouns)
3	Overview of verb entries	The <i>be</i> verb and other ordinary verbs
4	How to use electronic dictionaries and how to check idioms	Negative and/or interrogative sentences
5	How to identify and distinguish transitive and intransitive verbs	The five sentence patterns (including transitive and intransitive sentences)
6	How to determine the parts of speech of words in a sentence	Determiners and generics
7	How to check verb conjugation forms	Tense and progressive (where present and past participles are introduced)
8	How to disambiguate verbs using semantic selection restrictions on subjects and objects	Perfect
9	How to check prepositions and adverb particles in a sentence I: Prepositional phrases	Modals

10	How to check prepositions and adverbial particles in a sentence II: Adverbial particles and phrasal verbs	Semi-modals
11	How to check verbs in the passive voice	Passive voice
12	Overview of noun entries	Interrogative words and indirect questions
13	How to check adjectives	Imperative and exclamatory sentences (where adjectives often play an important role)
14	How to disambiguate verbs using sentence patterns	Nominal infinitives (which makes the inventory of covered sentence patterns more diverse)

Table 5. The Overview of My Plan for Teaching Dictionary Use

Week	Disambiguation	Lexico-grammatical information	Correspondence recognition
2	X	X	
3		X	X
4			
5	X	X	
6	X	X	
7			X
8	X	X	X
9	X	X	X
10	X	X	
11		X	X
12		X	X
13	X	X	X
14	X	X	X

Table 6. The Connection between My Handouts and the Key Concepts

I selected what to teach mainly based on my observation of remedial students' dictionary use and their problems. In addition, I, while consulting E-J dictionaries, introspected about my cognitive activity that does not seem self-explanatory to beginners. The ability to make proper use of dictionaries consists of multifaceted skills; Béjoint (1989: 210) lists 18 skills that the ideal dictionary user should possess. Given the time limitation, I chose

to concentrate on some major points with which students need to familiarize themselves first, especially disambiguation (i.e., skill c5 in Béjoint's list).

### 3.3 Key Concepts of My Teaching and Handouts

There are three closely interrelated key concepts that recur in the entire series of lessons: *disambiguation*, *lexico-grammatical information*, and *correspondence recognition*.

#### 3.3.1 Disambiguation: The Most Critical Process for E-J Dictionary Use for Comprehension

Given that time to teach dictionary use in remedial education is severely limited (in my case I had fifteen minutes per week and 13 weeks), it may be advisable to focus on students' most common use of E-J dictionaries: checking the meaning of unknown or unclear expressions (mainly words). The problem students often encounter then is that most entries list multiple meanings to choose from, so students need to learn to disambiguate.

Disambiguation in general is an activity through which readers or hearers choose an appropriate meaning for expressions with multiple potential meanings. As theories of pragmatics (e.g., Sperber & Wilson, 1995) elucidate, all readers/hearers are almost always required to complete this task in order to understand linguistic input correctly. However, disambiguation in their native language is quite a different process from that in their foreign language with the help of dictionaries; the former is almost always successfully done automatically while the latter is conscious, and users need to become accustomed to this process.

It is by no means easy most of the time for dictionary beginners to select the meaning that best fits their current context. This is mainly because dictionaries do not directly explain how an expression should be interpreted in a particular context; instead, it just provides lists of decontextualized meanings of a word, so dictionary users typically need to select an appropriate meaning on their own. Disambiguation is, precisely speaking, required just about every time when users consult a dictionary, for, as noted before, most words' entries have more than one meaning. As Sugawara (2011: 137) argues, the process of choosing a contextually appropriate meaning is the most important task in reading English texts; however, as Béjoint (1989) puts it, "finding

information about the meaning of words is at the same time one of the easiest things that users do . . . and one of the most complex operations” (p. 211). Therefore, it is vital for teachers to address students’ problems arising from engaging in disambiguation by indicating how to identify various clues for making the right choice. In my teaching practice, 8 out of the 13 handouts address this issue in some way or another. For the purpose of improving students’ ability to disambiguate, it is advisable to use potentially problematic ambiguous words in exercises, and urge students to disambiguate them using various clues and E-J dictionaries.

Readers/listeners have various types of clues that can help with disambiguation. Encyclopedic knowledge of the subject matter of a text usually helps readers engage in disambiguation. For instance, if the word *mouse* is used in a computer manual, it is very likely to mean a kind of input device, not a kind of rodent. This kind of hint is always helpful but not language-specific, so instructors probably do not have to make it a top priority. More language-specific and equally useful are linguistic clues found in texts, especially in the same sentence containing the ambiguous word or phrase. Dictionary users can make full use of these contextual clues when they combine the clues with lexico-grammatical information in dictionaries, which is the next key concept.

### **3.3.2 Lexico-grammatical Information: Beyond the Matching-table View of Dictionary Use**

As discussed in 1.1, many remedial students use E-J dictionaries just as a matching table consisting of English headwords and their first Japanese counterparts when trying to comprehend English sentences, ignoring other information. Counter to this practice, dictionaries provide much more information, most of which is important for using words correctly and for understanding which of a word’s several meanings is being employed. Countability of nouns is a good example. English nouns are either countable or uncountable and they behave according to it; for instance, countable nouns can be pluralized while uncountable ones cannot, which is a reflection of lexico-grammatical information.

Dictionaries provide more extensive lexico-grammatical

information on verbs, yet in potentially obscure ways at least to dictionary beginners. To illustrate this point, consider the next sentence: *She treated the cow as a god*. If readers look up the word *treat* in *Genius English-Japanese Dictionary* (4<sup>th</sup> edition) as part of an attempt to disambiguate, they find the following list of twelve meanings, from which they have to choose the proper meaning.

### Verb

#### Transitive

- [SVOM] ⟨human-ga⟩ O ⟨object, human, animal⟩ -o [ . . . *toshite* / . . . *no yōni*] *atsukau*, *taigū-suru*, *toriatsukau* [as/like]; ⟨newspaper, etc.-ga⟩ ⟨incident, etc.⟩ -o *atsukau*
- [SVO as C] ⟨human-ga⟩ O ⟨word, situation, etc.⟩ -o . . . *to minasu*
- [SVO] ⟨human, etc.-ga⟩ ⟨problem, etc.⟩ -o *ronzuru*, . . . *nitsuite noberu*
- [SVOM] ⟨human-ga⟩ O ⟨patient/disease⟩ -o [ . . . *de*] *chiryō-suru*, *teate-suru* [with]; ⟨human⟩ [-no disease] -o *chiryō-suru* [for]
- [SVOM] ⟨human-ga⟩ ⟨object⟩ -o [chemical, etc. -*de*] *syori-suru* [with]
- [SVO(M)] ⟨human-ga⟩ ⟨human⟩ -*ni* [ . . . *o*] *ogoru*, *ataeru* [to]; ⟨voter⟩ -o (for the purpose of buying off) *kyōō-suru*, *motenasu*

#### Intransitive

- ☐[usually *a* ~] [SVM] ⟨book, etc.-ga⟩ [ . . . *o*] *ronzuru*, *atsukau* [of]
- [SV(M)] ⟨human-ga⟩ [ . . . *to* / . . . *no koto-de*] *kōsyō-suru*, *torihiki-suru* [with/for]
- (human-*ni*) *ogoru*; (for the purpose of buying off voters) *kyōō-suru*

### Noun

- ☐[usually *a* ~] *tanoshimi*, *yorokobi*; *tanoshimi-o atae-te kureru mono* [*moyōshi*], *hōbi*, *gochisō*
- ((informal)) [*one's* ~] *ogori*; *ogoru ban*
- ((British informal))[*a* ~; adverbially] *zyōsyubi-ni*, *mōshibun naku*

Let us disambiguate the word *treated*, using lexico-grammatical information. First of all, *treated* is a verb, not a noun, in terms of its *part of speech* (week 6). This is among the most important lexico-grammatical information because these divisions are ubiqui-

tous in English and the most useful piece of information with which to begin disambiguation. In this case, this fact enables dictionary users to eliminate the three non-verbal meanings.

Second, since *treated* is used here as a verb, users need to pay attention to its *transitivity* (week 5), which is also an important piece of lexico-grammatical information. The fact that *treated* is followed by its object *the cow* indicates that the verb is being used in a transitive way. This allows users to exclude the three intransitive meanings.

The next lexico-grammatical information to focus on is *sentence pattern indexes* (week 14). In this case, the six transitive senses have much the same patterns, which means they are not determinant here. Still, they also give some hints. Since the example sentence *she treated the cow as a god* has S V O, and *as a god*, the second meaning is then the most plausible in this respect.

However, another kind of lexico-grammatical information, *semantic selection restrictions* (week 8), shows that this is not the meaning of *treated* in this sentence. For this meaning, ⟨human-*ga*⟩ specifies that the subject noun phrase represents some human(s), which is not problematic here. However, next to it, O ⟨word, situation, etc.⟩ requires that the object noun phrase represent words or situations, which is not the case with the sentence. Therefore, the second one cannot be the meaning of *treated* in the example. On the other hand, the first sense specifies that the object has to represent something, someone or some animal, as the object *the cow* does.

This interpretation is confirmed by another kind of lexico-grammatical information, *adjuncts' (or arguments') prepositions and semantic roles* (week 3, 12, 13), represented by the two pairs of hexagonal brackets sandwiching the Japanese counterparts: [ . . . *toshite* / . . . *no yōni* ] *atsukau*, *taigū-suru*, *toriatsukau* [ *as/like* ]. These brackets provide information on *M*'s (modifiers) in the sentence pattern index how they are marked and what semantic role they play when *treat* is used in this sense. The sentence in question has *as a god*, and descriptions of other transitive meanings do not contain this kind of *as* phrase, except for the second one, which has been already eliminated, so it is now clear that *treated* is used in the first transitive sense.

The above demonstration has illustrated the usefulness of lexico-grammatical information in disambiguation. In my class, a

week's dictionary section (or at least part of it) is devoted to each of these five kinds of information.

What is important here is that such information gives a top-down perspective to remedial students who always interpret a sentence only in a bottom-up fashion by inferring its meaning from a collection of the Japanese "equivalents" of English words. Hence, instructors should emphasize lexico-grammatical information in dictionaries when teaching dictionary use.

### 3.3.3 Correspondence Recognition: One of the Most Important Cognitive Tasks in Dictionary Use

Let us return to the two hexagonal brackets to explain the third key concept, correspondence recognition. The first brackets contain Japanese functional expressions, while the second ones contain English prepositions. Those brackets are used in a pair, and each Japanese part partitioned with a slash corresponds with an English counterpart, as illustrated below.<sup>7,8</sup>

[... *toshite* / ... *no yōni*] *atsukau, taigū-suru, toriatsukau* [as/like]

Figure 1. Intra-textual correspondences between hexagonal brackets

They indicate that *as* ... is interpreted as ... *-toshite*, and *like* ... as ... *-no yōni*. Dictionary users need to recognize many correspondences like these to make full use of lexico-grammatical information.

Such correspondences can be classified into two categories: what I name *intra-textual correspondence* and *inter-textual correspondence*. Intra-textual correspondence is made between two or more pieces of information in a particular dictionary entry, such as Japanese and English hexagonal brackets, or the correspondence between *S* in the sentence pattern index and semantic selection restriction ⟨*human-ga*⟩, as shown below.

**treat** *vt.* 1. [S V O M] ⟨*human-ga*⟩ O ⟨object, human, animal⟩ -o

[... *toshite* / ... *no yōni*] *atsukau, taigū-suru, toriatsukau* [as/like]

Figure 2. Intra-textual correspondences

On the other hand, inter-textual correspondence is made between information in a dictionary and the text being read, such as between *S* in the sentence pattern index and the subject, *she*, in the example, as illustrated below.

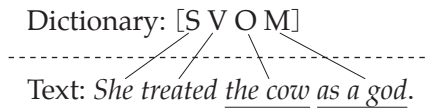


Figure 3. Inter-textual correspondences

Making these correspondences is a crucial cognitive process<sup>9</sup> whenever users decode information in a dictionary and apply it to the text they are reading.

Although correspondence recognition in a general sense is, obviously, one of the general cognitive tasks that human beings successfully do every day, I found that students' failures in dictionary use often result from missing some correspondence. Therefore, when instructors see a student fail to extract necessary information from a dictionary, it is very often advisable to the student to confirm the relevant correspondence. Correspondence recognition is a subject involved in eight of my 13 handouts.

### 3.4 Partial Description of My Teaching and Handouts<sup>10</sup>

In what follows, I will describe some of my 13-week-long E-J dictionary use teaching practices. The order in which I actually taught the points listed in Table 5 is not significant since it was determined mainly by the relevance of those points to each week's grammar section. In what follows I reorganize some of the 13 weeks of lessons, ordering them by parts of speech with the most general points first.

#### 3.4.1 General Points: How to Determine Parts of Speech of Words in a Sentence

Sound understanding of English parts of speech, arguably the most restrictive lexico-grammatical property determining how a word or phrase may be used, is fundamental to proper use of E-J dictionaries. Many English words, especially basic ones, can be used in multiple parts of speech, and in E-J dictionaries their meanings are grouped by them.<sup>11</sup> Therefore, sound understand-



ing of them not only facilitates parsing sentences, but also makes the activity of disambiguation efficient. However, many remedial students are not accustomed to thinking about words in a sentence in terms of parts of speech.

I agree with the widely held view that parts of speech should be covered in dictionary use education (Nakayama, 2008; Hidai, 2009; Sekiyama, 2007). However, I do not agree with many previous studies on how best to explain parts of speech when teaching dictionary use. Previous studies have advocated or accepted vague conceptual definitions of them. For example, nouns are defined as “representing names or concepts of things or humans” in Sekiyama (2007: 43, trans. mine). Hidai (2009: 56) also defined nouns in much the same way, and in discussing the part of speech of *like* in the sentence *like many people in Australia, I love sports*, he writes, “since *like* is not the name of a person, it is not a noun” (p. 60, trans. mine). This kind of conceptual characterization may be useful when students first learn what parts of speech are in a very general way. However, as Higuchi (2012: 19) points out, it is not helpful when students try to specify the part of speech of a word in a text so that they check it in an E-J dictionary. It is not until it becomes clear that *studies*, for instance, in appearing in a certain sentence is a noun, not a verb, that the word is understood as a name of something.<sup>12</sup>

Instead of defining them conceptually as many books on dictionary use do, instructors should put more emphasis on how words belonging to each part of speech are used in a sentence. Such information about the roles played by each part of speech in a sentence is more helpful to learners trying to determine the part of speech of a word. For instance, instructors can provide the following guide on the behavior of nouns and exemplification thereof: nouns can be (i) the head of a subject, (ii) the head of an object, (iii) the head of the object of a preposition (iv) the head of a subject or object complement, or (v) a modifier of a noun.

- ( i ) The **still** is beautiful.
- ( ii ) Thunder broke the **still** of the night.
- ( iii ) There is a spot on the **still**.
- ( iv ) This is a **still** from the movie.
- ( v ) We are **cat** lovers.

After the explanation and illustration of how each major content word categories is used in a sentence, exercises involving identifying parts of speech of words in sentences based upon their morphosyntactic environment are of great use. For example, it would be useful to determine the part of speech of (a) words that should occupy blanks in, for example, “We [i]ed the [ii] [iii]s on the [iv],”<sup>13</sup> and (b) words in a semantically anomalous sentence, such as *Still*<sub>1</sub>, *the still*<sub>2</sub> *stiller*<sub>3</sub> *stills*<sub>4</sub> *stilled*<sub>5</sub>. These exercises are obviously artificial but are beneficial to stop students from relying on a semantic guess alone and to sensitize them to grammatical clues to parts of speech.

### 3.4.2 How to Check Verbs in Passive Voice

Checking verbs used in passive sentences (or as past participles) via dictionaries is not as straightforward as checking active verbs, mainly due to a twist in correspondence. Since lexicogrammatical information in verb entries are basically based on active voice usage, inter-text correspondence between a text and a dictionary is not straightforward in passive sentences. This can cause difficulty for checking passive verbs, but this problem has not been widely discussed among previous studies, so I offer a method for teaching how to check passive verbs when passive voice is introduced.

The instruction should start with the following advice: even though a verb in passive voice is usually not followed by an object noun phrase, dictionary users need to look at the transitive part of verb entries, marked by ④ (or, in the case of phrasal verbs, [他] or [自+]; see Section 3.4.3.2). For example, even though no objects are found in *the window was broken on March 11*, dictionary users need to check the transitive usage in the entry of *break*. This may sound utterly obvious to veteran dictionary users but would be informative for beginners.

Equally important is the following point: when a sentence in question is in passive voice, users need to interpret information about objects (such as semantic selection restriction) as information about the passive subject; similarly, if an agent (i.e., the counterpart of active subjects) occurs in a passive sentence (e.g., *the window was broken by Tom*), information about active subjects should be applied to it. At the same time, it may be worth mentioning that some verbs frequently used in passive voice (e.g.,

*surprise* and *interest*) may have separate dictionary entries based on usage in passive voice.

### 3.4.3 How to Check Preposition Phrases and Adverb Particles

Almost all prepositions and adverb particles look familiar to even remedial students; however, as dictionary entries of these words illustrate, their usage is not simple. Besides, such familiarity can cause problems. Bogaards (1998) points out that, “when students are allowed to use a dictionary, it is not the unknown words which form a problem—they are recognized as such and looked up in the dictionary—but those that seem to be familiar in some way or another” (p. 152). This is because it is relatively difficult for learners to notice that apparently familiar words are causing difficulties. Therefore, such familiarity does not make instructors exempt from dealing with these words. Since many function words such as *on*, *in*, and *along*, can be used either as a preposition or adverb particle, how to look up words in these two categories should be taught in succession.

#### 3.4.3.1 Preposition phrases

Since prepositions are more familiar to beginners, they should be dealt with first. It is rare that learners need to look up prepositions themselves in E-J dictionaries to check their own independent meaning. There is a more common need to check the semantic contribution of preposition phrases; for example, one may need to look up the semantic contribution of *for water* in the sentence *people depend on the river for water*. To help students address this issue, instructors first have to teach the basic strategy, “check the preceding (or strictly speaking, head) verb and look for the preposition in the entry.” This strategy is effective in the case mentioned above since the entry of *depend* tells the semantic contribution of the *for* phrase. If users look up *for* or *water* alone, they are very unlikely to understand what the phrase means, because this is not a matter of their autonomous meanings but the result of the interactions between the preceding verb *depend*, the preposition *for*, and the noun phrase *water*. Not knowing the strategy, students can misinterpret *for water* as *mizu-no tameni* (for the benefit of water), misled by the typical Japanese counterpart of *for*. The strategy is surely part of common knowledge shared by skillful dictionary users although it is

not mentioned in books on dictionary use except for ELEC Dōyūkai Jissen Kenkyū Bukai (1998: 30).

It should be noted that this strategy cannot be applied to all preposition phrases. Even if a learner knows the strategy, it is not necessarily easy to know the semantic contribution of a prepositional phrase since there are several types of places where the preposition (or adverb particle) in question can be found. Also, students will need to distinguish prepositions from adverb particles if the word can be used in either way.

There are as many as six patterns of where to look for a preposition (or adverb particle) in *Genius E-J Dictionary* (4<sup>th</sup> edition), aside from the cases where the preposition (or adverb particle) in question is found only in illustrative examples. Four of the six involve prepositions, not adverb particles.

First, the aforementioned strategy does not work when the preposition is used irrespective of the verb in the same clause, as in *John smiled with his son in his room at 8:30 a.m.* In such cases, learners have to look up a preposition for the purpose of checking the meaning of the preposition phrase.

Second, there is another pattern where the strategy does not work. For example, in *you should go in the right direction at any cost*, *in* and *at* are used because of the following nouns (*direction* and *cost*, respectively). In this case, learners need to look up the nouns to check the meaning of this kind of preposition phrase.

The strategy works in the third pattern. A preposition under consideration can be found in a sentence pattern index of the verb preceding the preposition phrase, if a preposition phrase headed by the particular preposition always accompanies the verb when it is used in particular meanings. For instance, *on* in *he depends on his wife* can be found in a sentence pattern index of *depend*:

**depend** [Verb] Intransitive

1. [S V **on** [upon] O] <situation-ga> O <human, thing, situation>  
*shidai-dearu, . . . niyotte kimaru, . . . ni kakatteiru*
2. [S V **on** [upon] O] (a) <human-ga> [ . . . o] O <human, etc.>  
*(no shizi, enjo) ni tayloru, izon-suru, [ . . . nitsuite] . . . o ate-ni-suru* [for]                      (*Genius E-J Dictionary* [4<sup>th</sup> edition], p. 526)

In this specific case, learners are first required to choose the sec-

ond meaning between these two based on the semantic restriction on the subject, and then recognize a correspondence between *O* in the sentence pattern index and *his wife* in order to see the semantic contribution of the prepositional phrase.

Fourth, if the preposition is used for a (non-obligatory) adjunct in a particular sense, it may be found in a pair of the aforementioned hexagonal brackets [ ] following a list of Japanese equivalents of the verb. For an example, see *for* in the above entry of *depend*. In this case, as we have discussed before, learners need to draw a correspondence between the brackets before and after the equivalent list in order to see the meaning of the phrase.

### 3.4.3.2 Adverb particles and phrasal verbs

Adverb particles tend to be ignored in basic grammar lessons; for instance, Oiwa (2005), the textbook for the grammar section of my class, does not mention them. As a result, many English learners, especially beginners, are not familiar with adverb particles and confuse them with prepositions, so instructors should start by explaining what they are all about. To prevent the confusion, it is advisable to explain the reason they do not count as prepositions (i.e., they do not have objects, unlike prepositions). Equally important is providing detailed instructions on word order. Possible word order for an adverb particle and a neighboring noun phrase (e.g., *turn on the TV* and *turn the TV on*) or pronoun (e.g., *turn it on* but *\*turn on it*) is different from that of a preposition and its object noun phrase/pronoun (e.g., *look for the TV/it* but *\*look the TV/it for*). This fact provides the reason learners need to differentiate these two categories to produce correct sentences including them.

Adverb particles are found after Japanese equivalent lists in brackets starting with a plus sign (+ ) in verb entries (of *Genius E-J* [4<sup>th</sup> edition]), as shown in the next example:

**invite** [Verb] [Transitive] 1. <human>-o *maneku* (+along, over, (a)round), <human>-o [ . . . ni] *maneki ireru*(+in) [into]

This is the fifth possible place where function words such as *in*, *on*, or *over* can be found in E-J dictionaries. It should be added that their subtle meanings are described in entries for each adverb particle.

As the last possibility, adverb particles or prepositions can be found in the list of phrasal verbs or idioms in verb entries. In this case, the function word in question can be either a preposition or an adverb particle, making it reasonable to introduce this pattern last. Labels indicating transitivity of phrasal verbs should be explained here. In *Genius E-J* (4<sup>th</sup>), [自] is used for phrasal verbs consisting of an intransitive verb and an adverb particle, [他] is used for phrasal verbs made up of a transitive verb plus an adverb particle, and [自+] for phrasal verbs composed of an intransitive verb with a preposition. Phrasal verbs used in these three ways (e.g., *get across*) most clearly illustrate the difference between them.

The following point concludes this two-week series: a preposition follows an adverb particle if both co-occur in the same clause, as seen in the sentence *children should keep away from the lake*. As always, exercises using sentences containing adverb particles and phrasal verbs are suitable for a hands-on review.

## 4 Post-test and Follow-up Questionnaire

This section evaluates the effect of my teaching methods for E-J dictionary use in remedial courses, based on the results of a post-test, and a follow-up questionnaire.

### 4.1 Post-test

At the end of the term, I conducted the same dictionary quiz (with answer choices in a different order) as the post-test to the treatment and control groups. I taught the former group basic English grammar and how to use E-J dictionaries for a semester while to the control group I taught the same thing but for dictionary use. In short, I must admit that any dramatic effect of my teaching could not be observed, judging from the following statistics.

Comparing the average post-test score of the subject group students (who took also the pre-test) with their average score of the pre-test, it slightly, but not with statistical significance, decreased from 11.1 (46.3%) to 10.3 (42.9%),  $t(17) = 1.49$ ,  $p = .15$  (two-tailed). Similarly, the average score of the control group students who took also the pre-test increased slightly, but again without statistical significance, from 8.6 (35.8%) to 9.2 (38.3%),

$t(21) = 0.90, p = .38$  (two-tailed).

#### 4.2 Follow-up Questionnaire

Considering that dictionary reference skills cannot be acquired immediately, it may have been premature to measure the effect of dictionary teaching just after I finished teaching. In early December 2012, five months after the post-test, I conducted a follow-up questionnaire for the subject group to see if my dictionary use teaching had some effect in a relatively long run; 19 students answered it. Overall, their answers are mixed but slightly positive.

The first three questions are retrospective and concern my handouts and teaching. To most students they were *very useful* or *more or less useful*.

Very useful	3
More or less useful	13
Hardly useful	3
Not useful at all	0
Total	19

Table 7. How Useful Were My Dictionary Use Teaching and Handouts?

However, compared with this, their answer to the question on how well they understood my dictionary use handouts and teaching was a little less favorable, as shown in this table.

Very well	1
More or less	13
Hardly	5
Not at all	0
Total	19

Table 8. How Well Did You Understand My Dictionary Use Teaching and Handouts?

On the other hand, many of them appreciated translation exercises as practice in using the dictionary.

Very useful	6
More or less useful	9
Hardly useful	3
Not useful at all	1
Total	19

Table 9. How Useful Were Translation Exercises as Practice in Consulting Dictionaries?

This result suggests the effectiveness of my integrative approach, that is, teaching dictionary use as a component of English grammar class together with grammar explanation and exercises.

The next three questions are on the effect of their learning dictionary use. Five students answered that their perception of dictionaries (especially E-J ones) changed. For example, one of them wrote, "I got to know that they are more useful than I had thought" (trans. mine like other comments). Another student wrote, "I started to think like 'this part is an object,'" suggesting that this student began to think grammatically. The effect of dictionary use teaching was observed also in another way: not a few students started to consult E-J dictionaries more frequently than before although the same thing did not happen to eleven students.

Much more frequently than	1
A little more frequently than	7
As frequently as	11
A little less frequently than	0
Much less frequently than	0
Total	19

Table 10. Now You Consult E-J Dictionaries . . . Before You Studied Dictionary Use in This Class.

Their self-evaluation on the change of their E-J dictionary use skills was more favorable. While nine students chose *much the same*, ten students chose *a little better*.



Much better than	0
A little better than	10
Much the same as	9
A little worse than	0
Much worse than	0
Total	19

Table 11. Now Your E-J Dictionary Skills Are . . . Before You Studied Dictionary Use in This Class.

These results suggest that my teaching dictionary use seems to have had some long-term effect that could not be confirmed from the result of the post-test.

Lastly, there was a question that asks students to freely write on their impression on my dictionary teaching. Aside from a few negative comments such as “uninteresting” or “drowsy”, their comments were overall positive. One student wrote, “I used to use dictionaries without knowing how to use them, so it was good to learn how to use them.” Similarly, another student wrote, “I had hardly learned how to use dictionaries, so learning it was useful.” These comments would be encouraging to instructors planning to teach dictionary use.

## 5 Conclusion

I believe my way of teaching E-J dictionary use presented here serves as a useful reference for instructors interested in teaching dictionaries, but this is obviously just a first step. What and how to teach when one teaches how to use English dictionaries is different according to teaching context. I hope more instructors will teach dictionary use in various contexts and accumulate and broaden our knowledge on dictionary teaching.

## Notes

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fited from students and student assistants in my classes.

1. Part of this work has already been presented in the 52<sup>nd</sup> international convention of the Japan Association of College English Teachers. This is an abridged version of the submitted final dissertation. The unabridged version, including the quiz I used as the pre- and post-test and Gilmore's original quiz, and my dictionary use handouts are available at <http://p.tl/gExi>
2. This observation is based on a questionnaire and a quiz about how to use English-Japanese dictionaries that I conducted (see Section 2 for more details).
3. For other studies on dictionary use in general (aside from ones written in Japanese), see Welker (2010), which is a book-length survey.
4. Tono (2001), titled *Research on Dictionary Use in the Context of Foreign Language Learning: Focus on Reading Comprehension*, is a notable book-length study, but his focus is on learner's dictionary use itself, and consequently, he gives few suggestions on how to teach English dictionaries in class.
5. A *ronin* is a student who has failed an entrance examination and is preparing for the next one.
6. The full score is 24.
7. Hexagonal brackets are similarly used in some noun and adjective entries.
8. This is a common notation among E-J dictionaries, but, as Nishimura et al. (2000) recognized, it is usually "impossible to grasp unless one has written a dictionary or have carefully read 'how to use this dictionary' in the front matter." (p. 285, trans. mine) Experience has shown that this notation is not widely understood even to relatively advanced learners.
9. See Scholfield (1982) for a more extensive discussion of the cognitive tasks that English-dictionary users are required to perform.
10. For a full description, refer to the unabridged version of this paper (see note 1).
11. For example, *right*, *sound*, *still*, and *square* can be used either as a noun, verb, adjective, or adverb.
12. Moreover, in the case of nouns representing activity, such as *study* (i.e., activity of conducting research), conceptual definitions may not be straightforwardly applied.
13. Nakayama (2008) presented a similar exercise where students guess the part of speech of a blacked-out word in a passage.

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